



**PUBLIC SAFETY
INTEROPERABLE
COMMUNICATIONS**

- **RWC Description**
- **RWC System Overview**
- **RWC Projects**
- **Operations**



RWC Description

- Began in 1978 as the Fire Automatic Aid consortium
- Late 1980's Mesa – Phoenix Handshake
- Phoenix , Mesa, Fire Automatic Aid partnered to build regional radio system
- Formed the Phoenix Regional Wireless Network (PRWN) and Trunked Open Arizona Network (TOPAZ) – linked as one system

RWC Description

- Jointly developed a governance document
- Completed in May 2006
- Reached an impasse over key issues
- Mesa and Phoenix proceeded with independent versions of governance IGA's, forming:



RWC Description

- Consortium of Members
- Governed by IGA
- The goal of the RWC is to provide seamless operable and interoperable communications for all Members through a governance structure founded on the principle of cooperation for the mutual benefit of all Members.



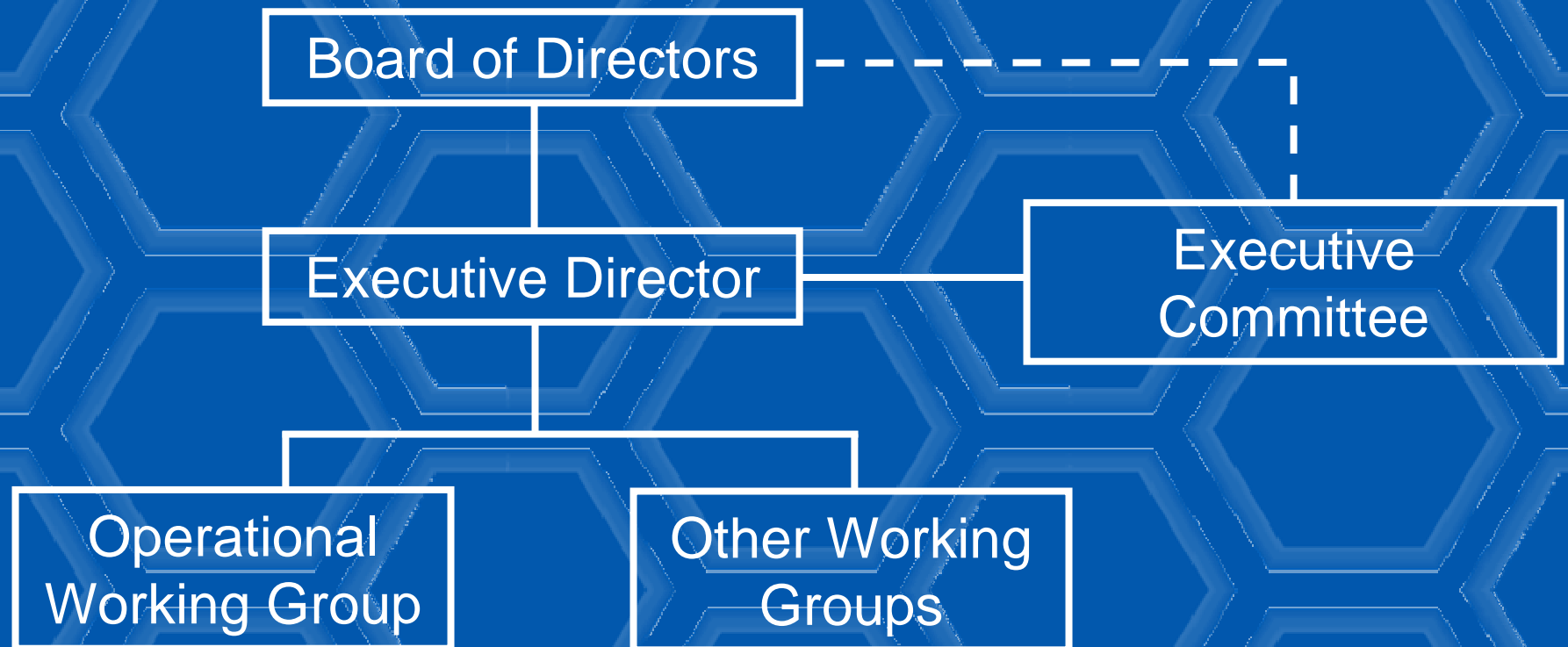
RWC Description

Current Members			Anticipated Members
Avondale	Buckeye	Chandler	Glendale
Daisy Mountain	El Mirage	Goodyear	Paradise Valley
Guadalupe	Maricopa	Phoenix	Tolleson
Peoria	Scottsdale	Sun City	
Sun City West	Sun Lakes	Surprise	
Tempe			



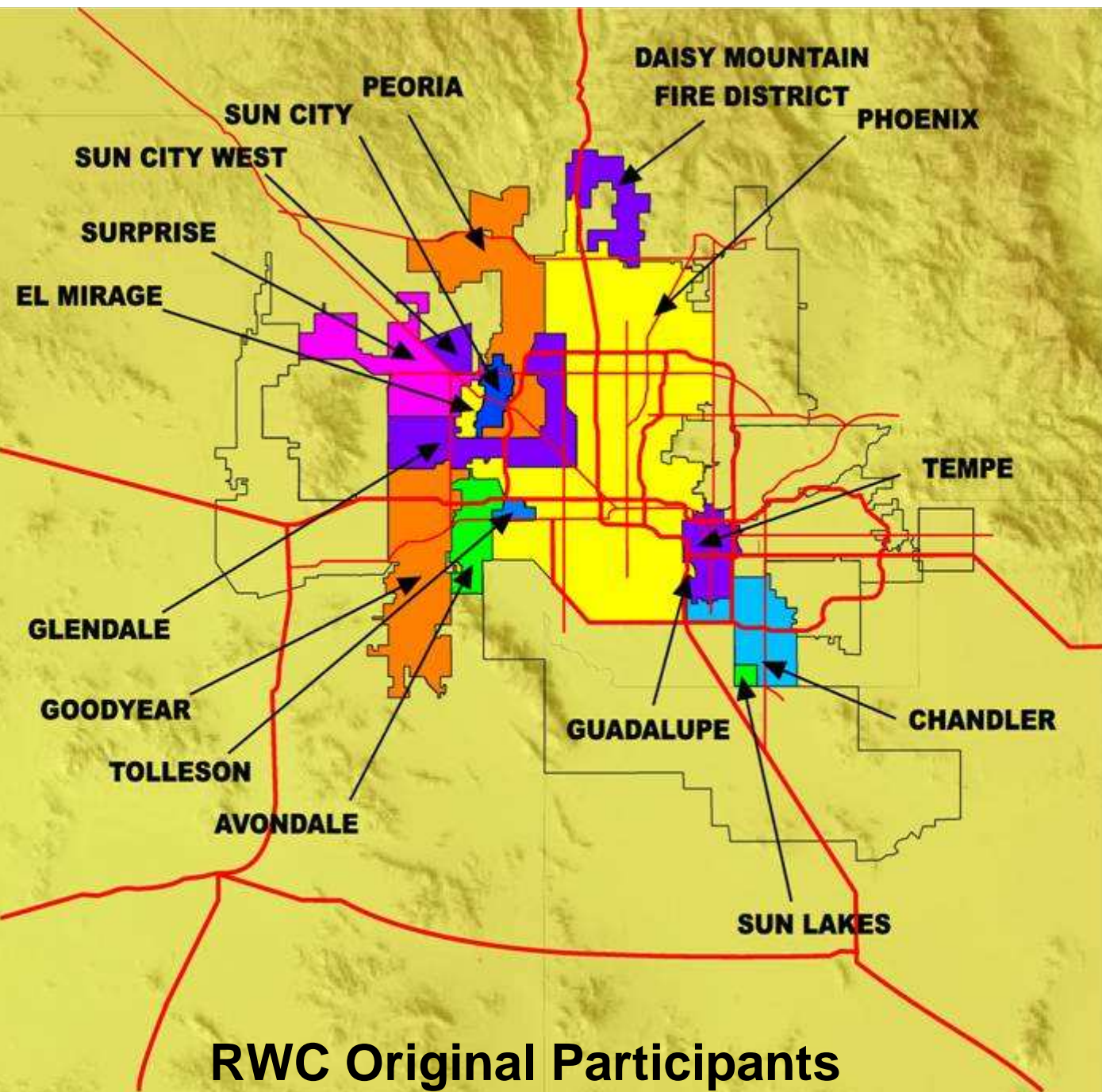
RWC Description

- Organization

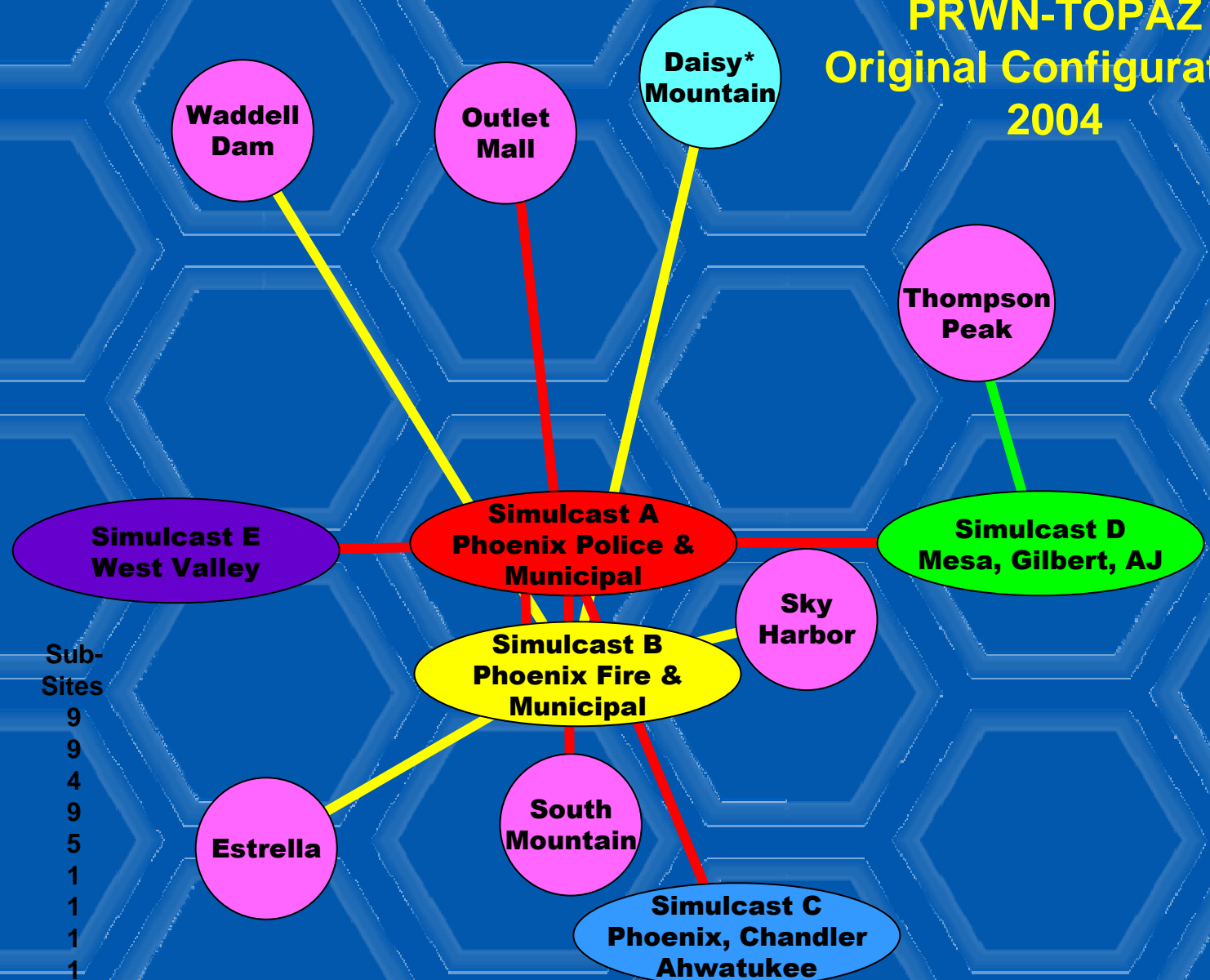


RWC Description

- Governance IGA
 - Organization
 - Types of Members
 - Members, Associates, Interoperability, Conditional
 - Voting rights
 - Based on consensus, equal vote for each Member
 - Weighted vote may be called for by any Member
 - Asset ownership
 - Finances



PRWN-TOPAZ Original Configuration 2004

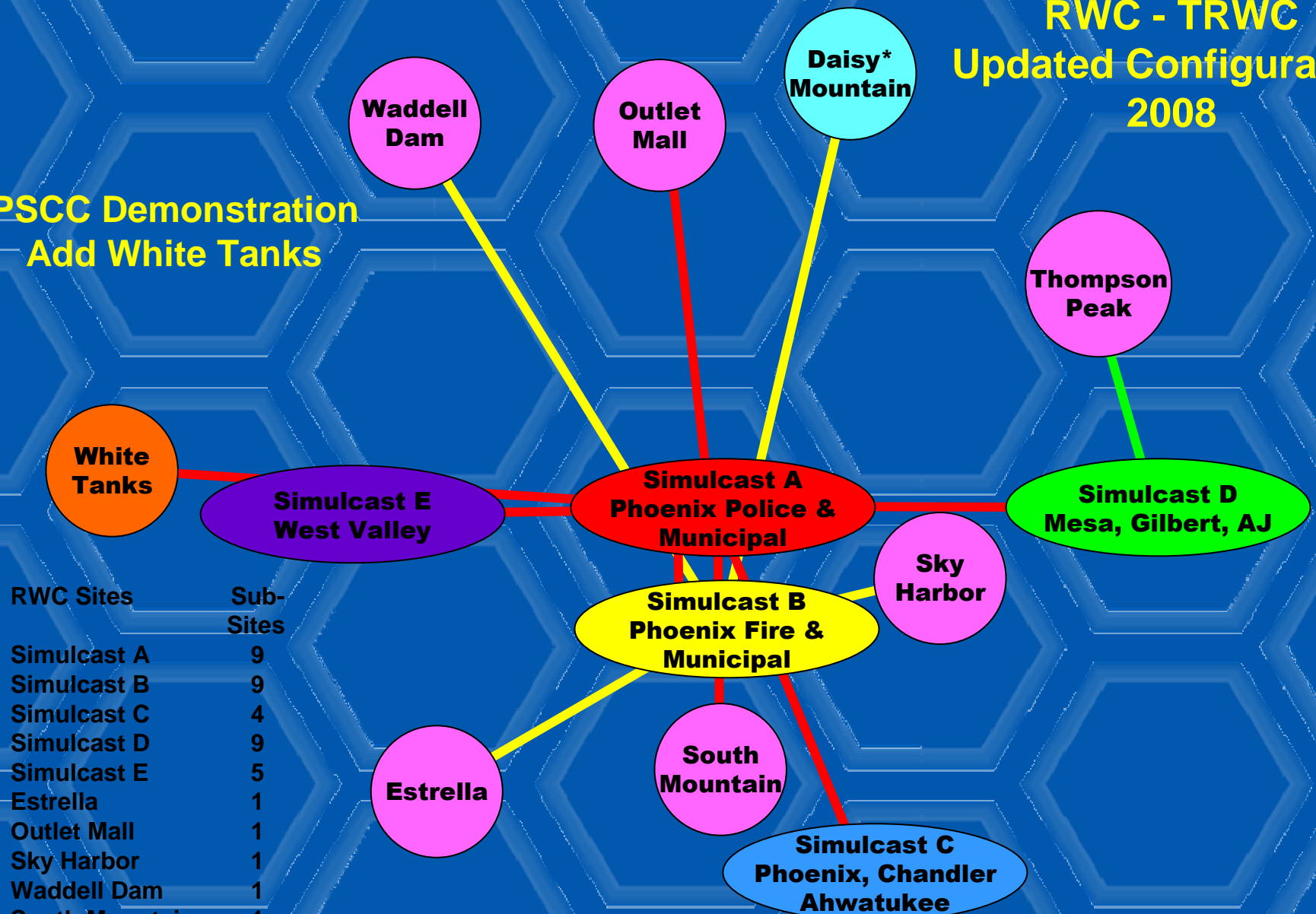


RWC Sites	Sub-Sites
Simulcast A	9
Simulcast B	9
Simulcast C	4
Simulcast D	9
Simulcast E	5
Estrella	1
Outlet Mall	1
Sky Harbor	1
Waddell Dam	1
South Mountain	1
Thompson Peak	1
Daisy Mt.	4

* Conventional Only

RWC - TRWC Updated Configuration 2008

**PSCC Demonstration
Add White Tanks**

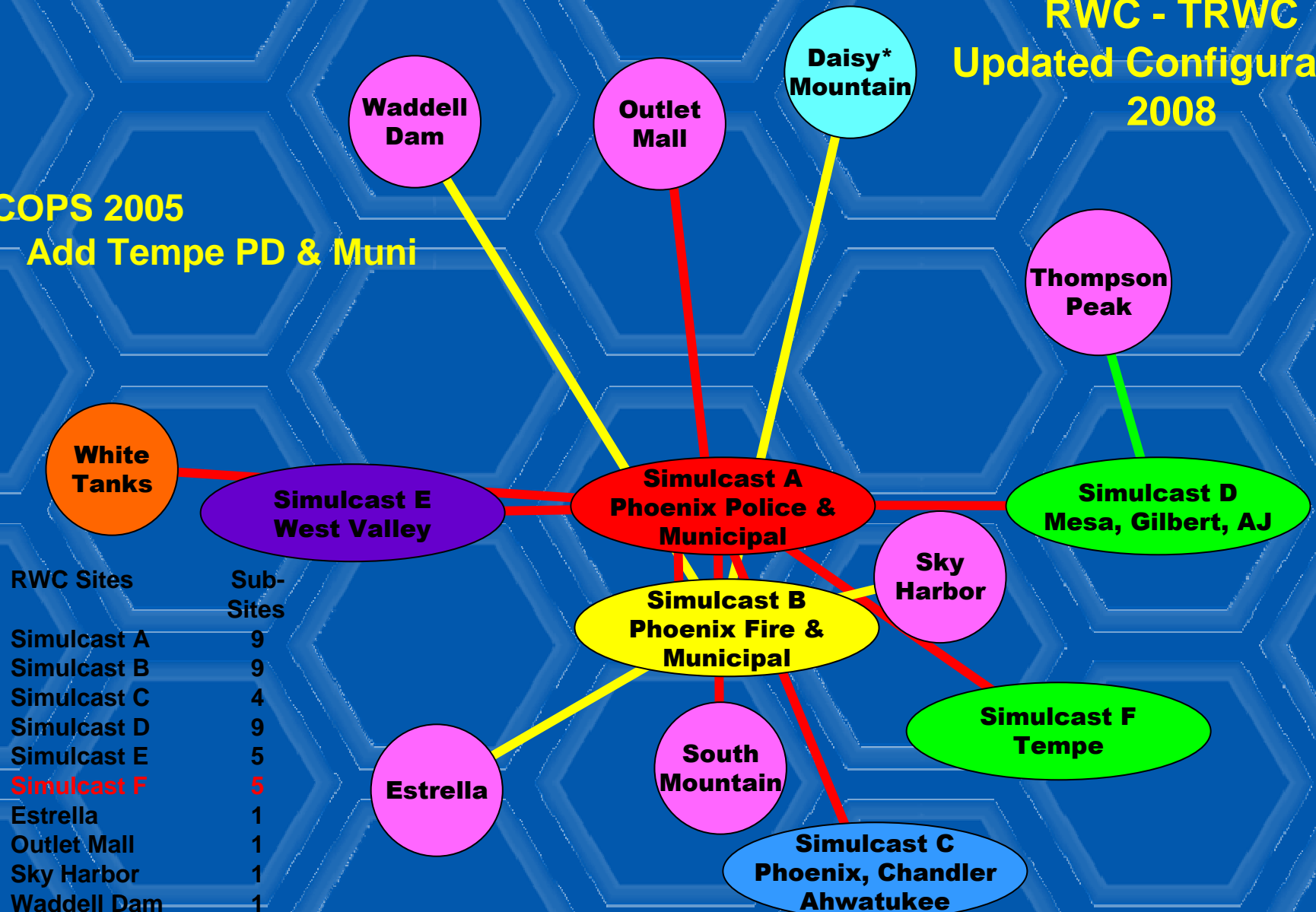


RWC Sites	Sub-Sites
Simulcast A	9
Simulcast B	9
Simulcast C	4
Simulcast D	9
Simulcast E	5
Estrella	1
Outlet Mall	1
Sky Harbor	1
Waddell Dam	1
South Mountain	1
Thompson Peak	1
Daisy Mt.	4
White Tanks	1

* Conventional Only

RWC - TRWC Updated Configuration 2008

COPS 2005
Add Tempe PD & Muni

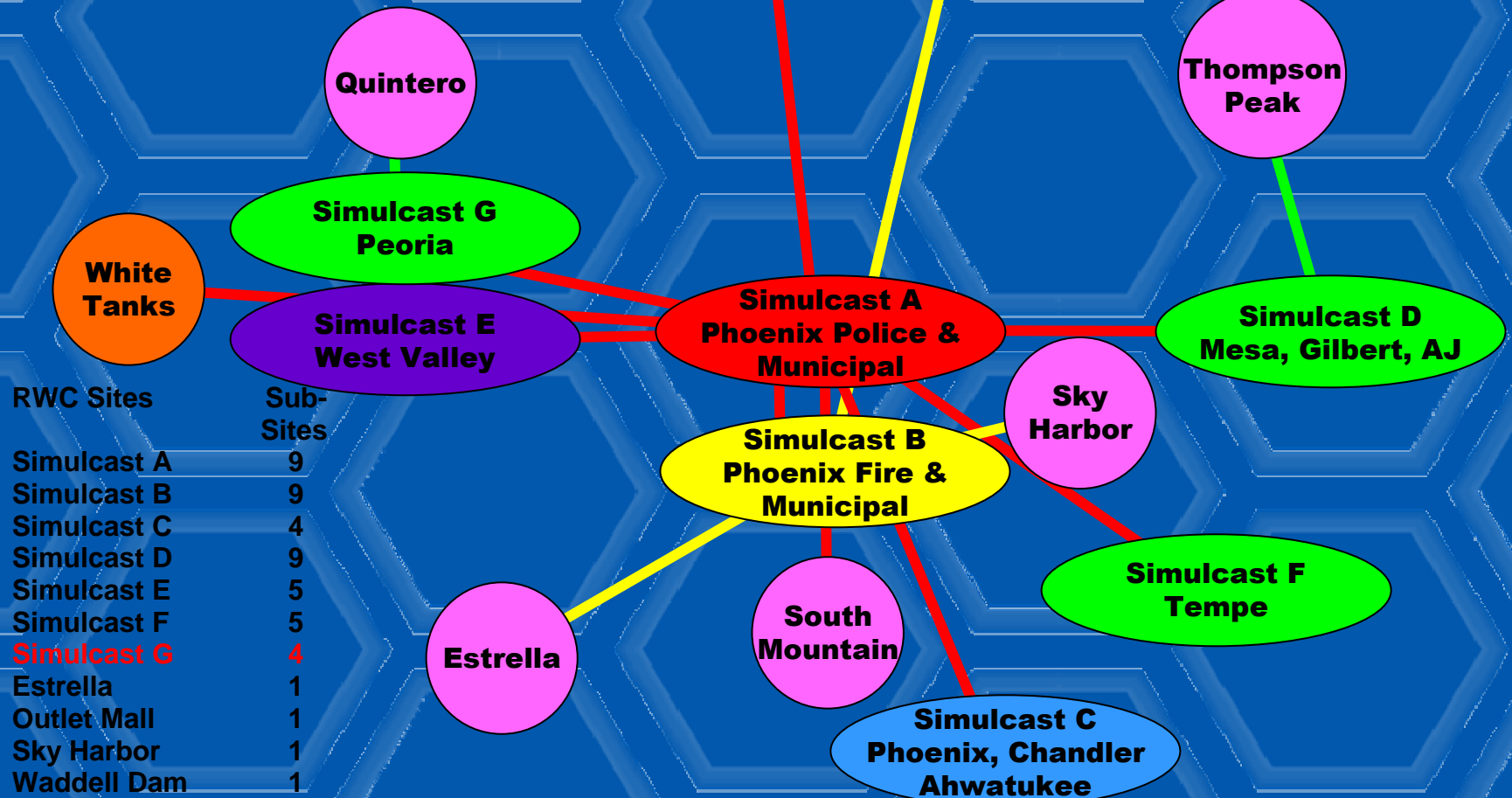


RWC Sites	Sub-Sites
Simulcast A	9
Simulcast B	9
Simulcast C	4
Simulcast D	9
Simulcast E	5
Simulcast F	5
Estrella	1
Outlet Mall	1
Sky Harbor	1
Waddell Dam	1
South Mountain	1
Thompson Peak	1
Daisy Mt.	4
White Tanks	1

* Conventional Only

RWC - TRWC Updated Configuration 2009

Add Peoria
PD & Muni
Merge Waddell

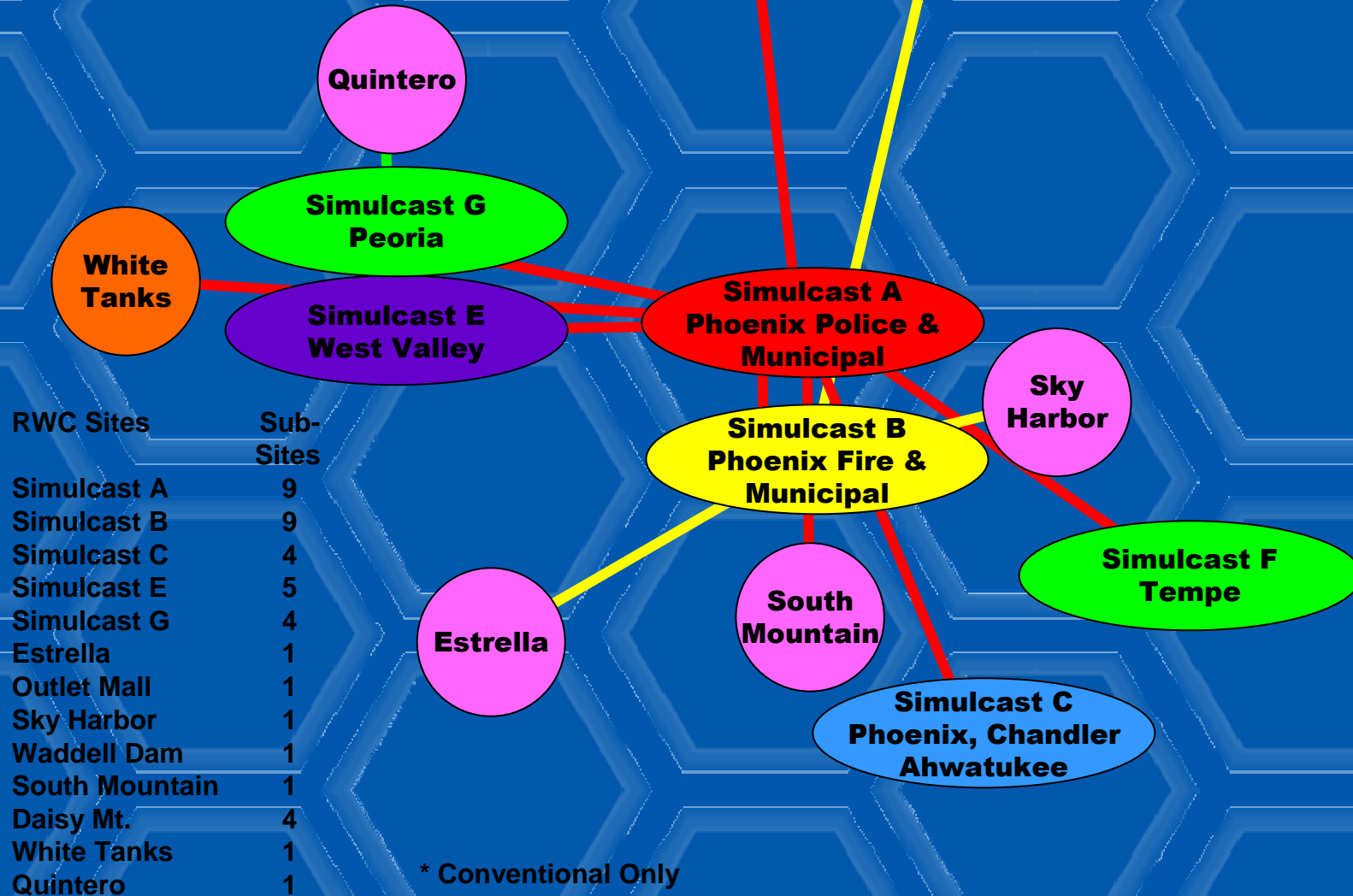


RWC Sites	Sub-Sites
Simulcast A	9
Simulcast B	9
Simulcast C	4
Simulcast D	9
Simulcast E	5
Simulcast F	5
Simulcast G	4
Estrella	1
Outlet Mall	1
Sky Harbor	1
Waddell Dam	1
South Mountain	1
Thompson Peak	1
Daisy Mt.	4
White Tanks	1
Quintero	1

* Conventional Only

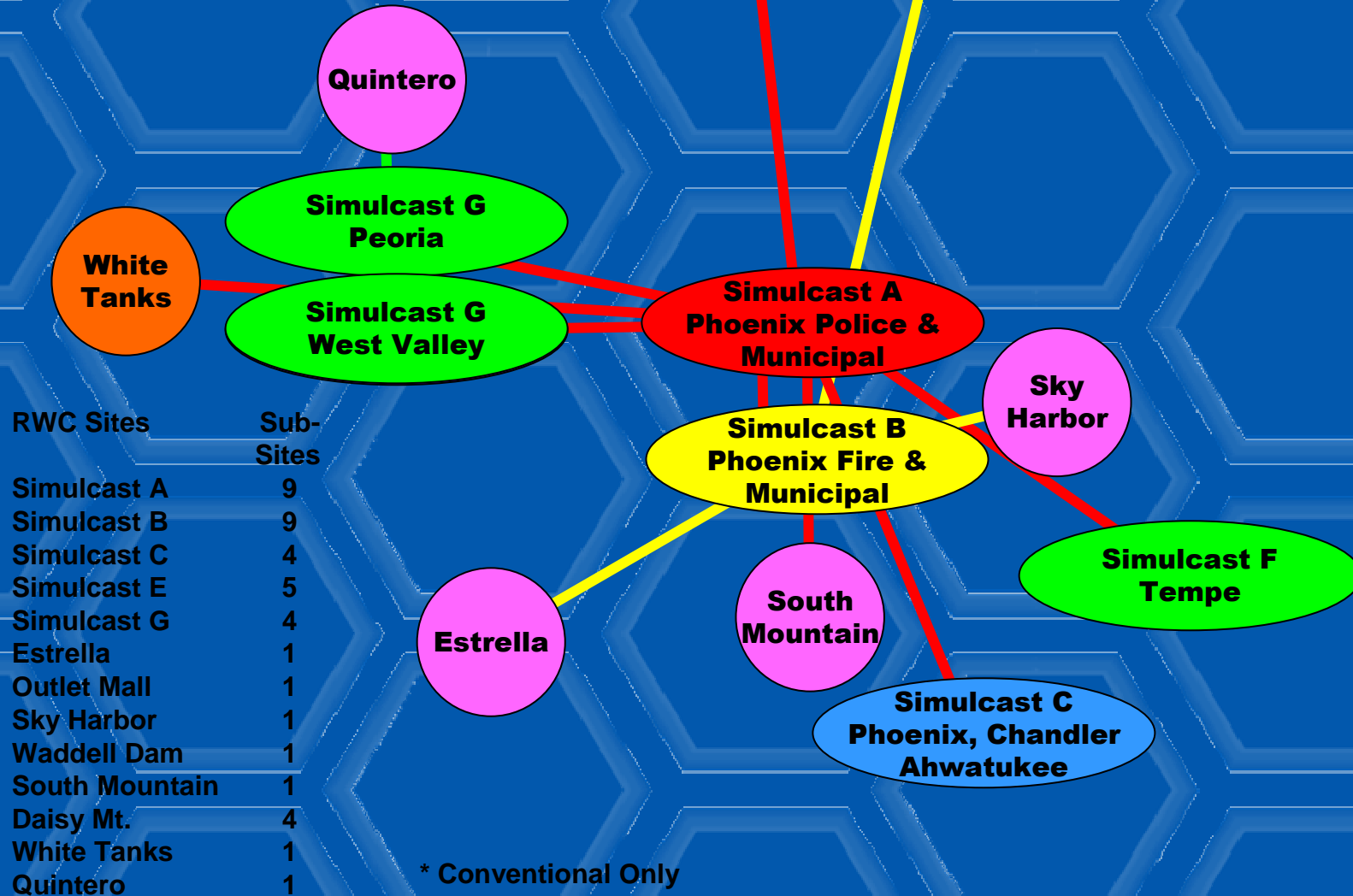
RWC – TRWC Separation

RWC Updated Configuration 2009



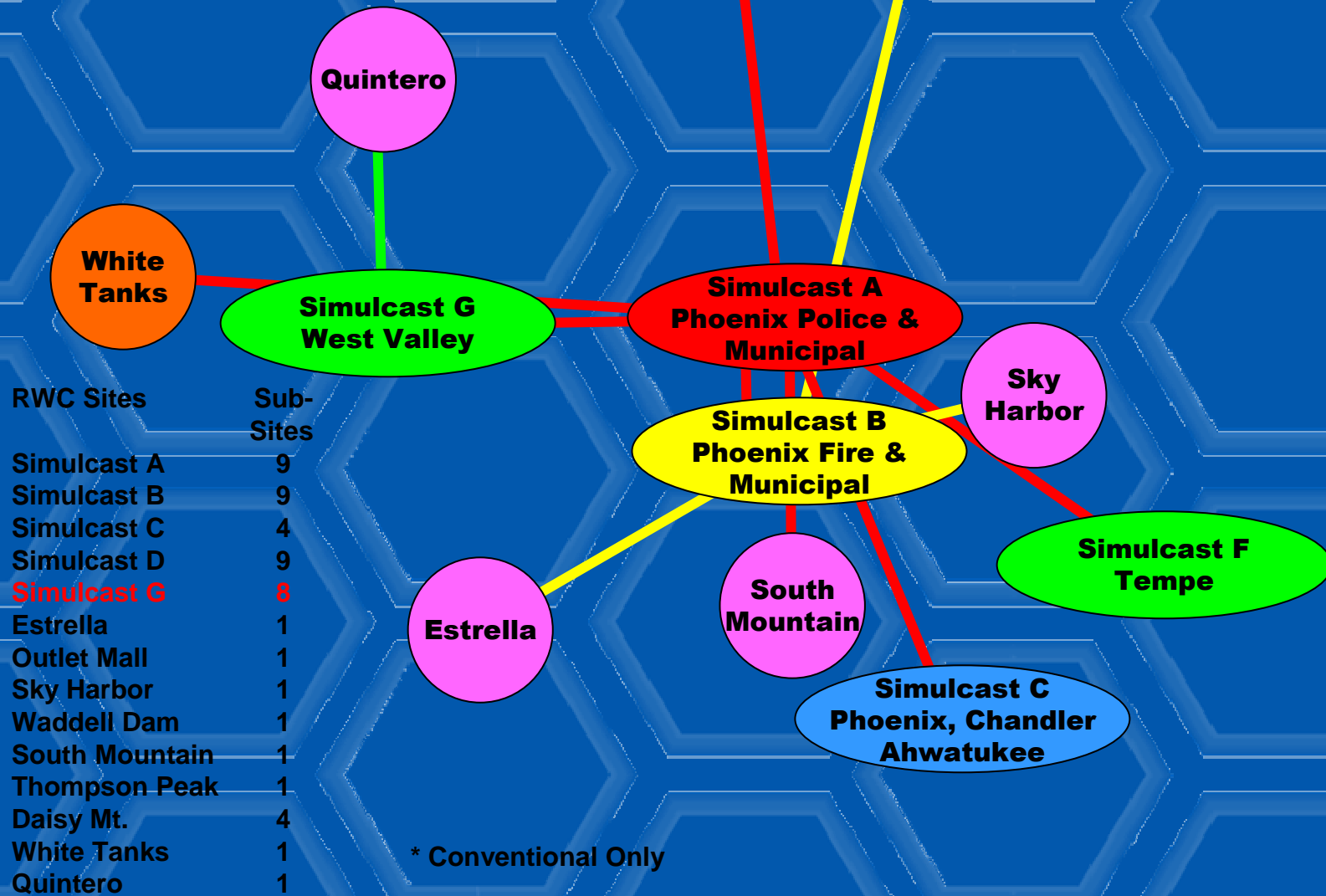
RWC – TRWC Separation

RWC Updated Configuration 2009



**COPS 2007
Merge E & G**

**RWC
Updated Configuration
2010**



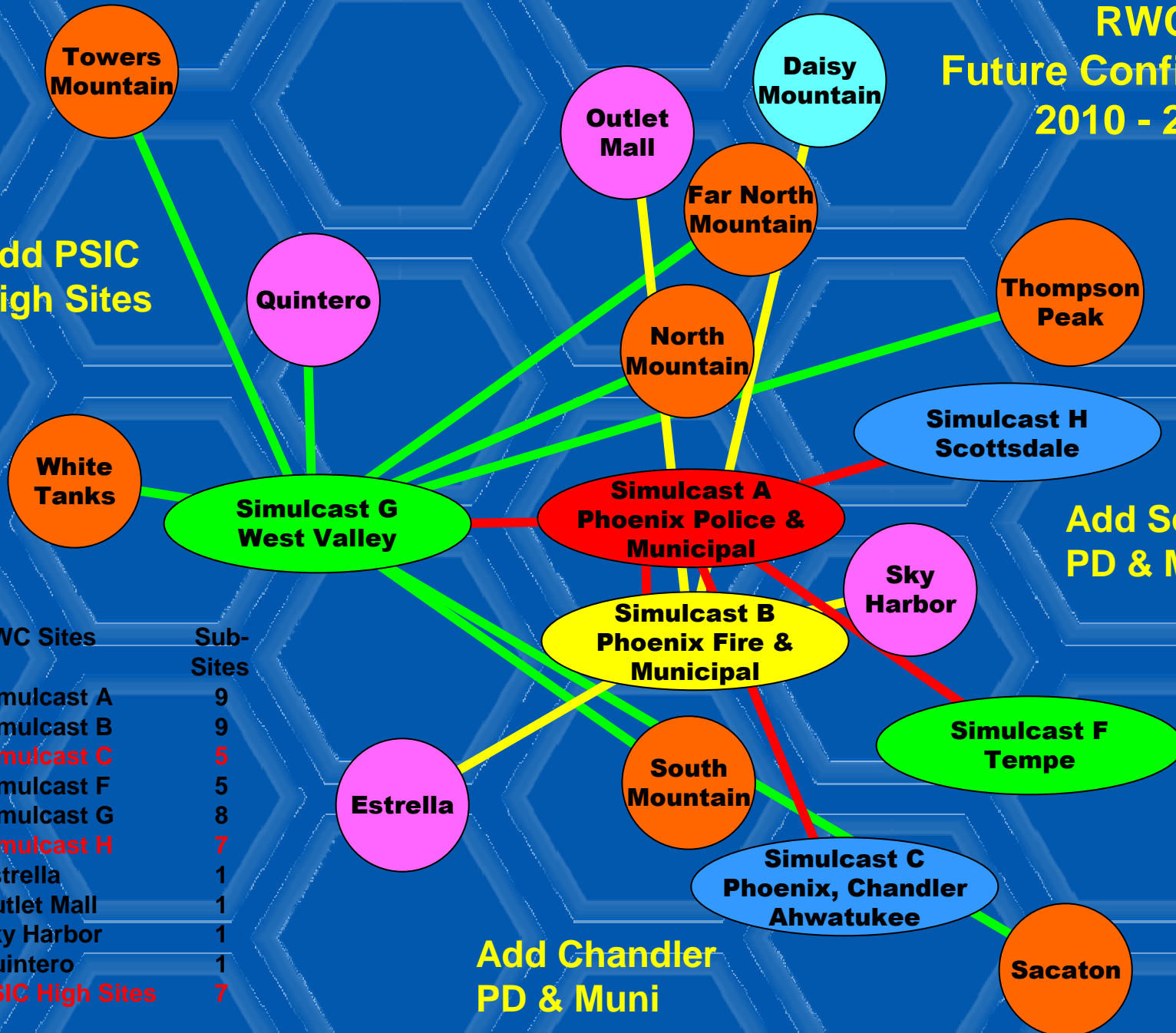
RWC Future Configuration 2010 - 2011

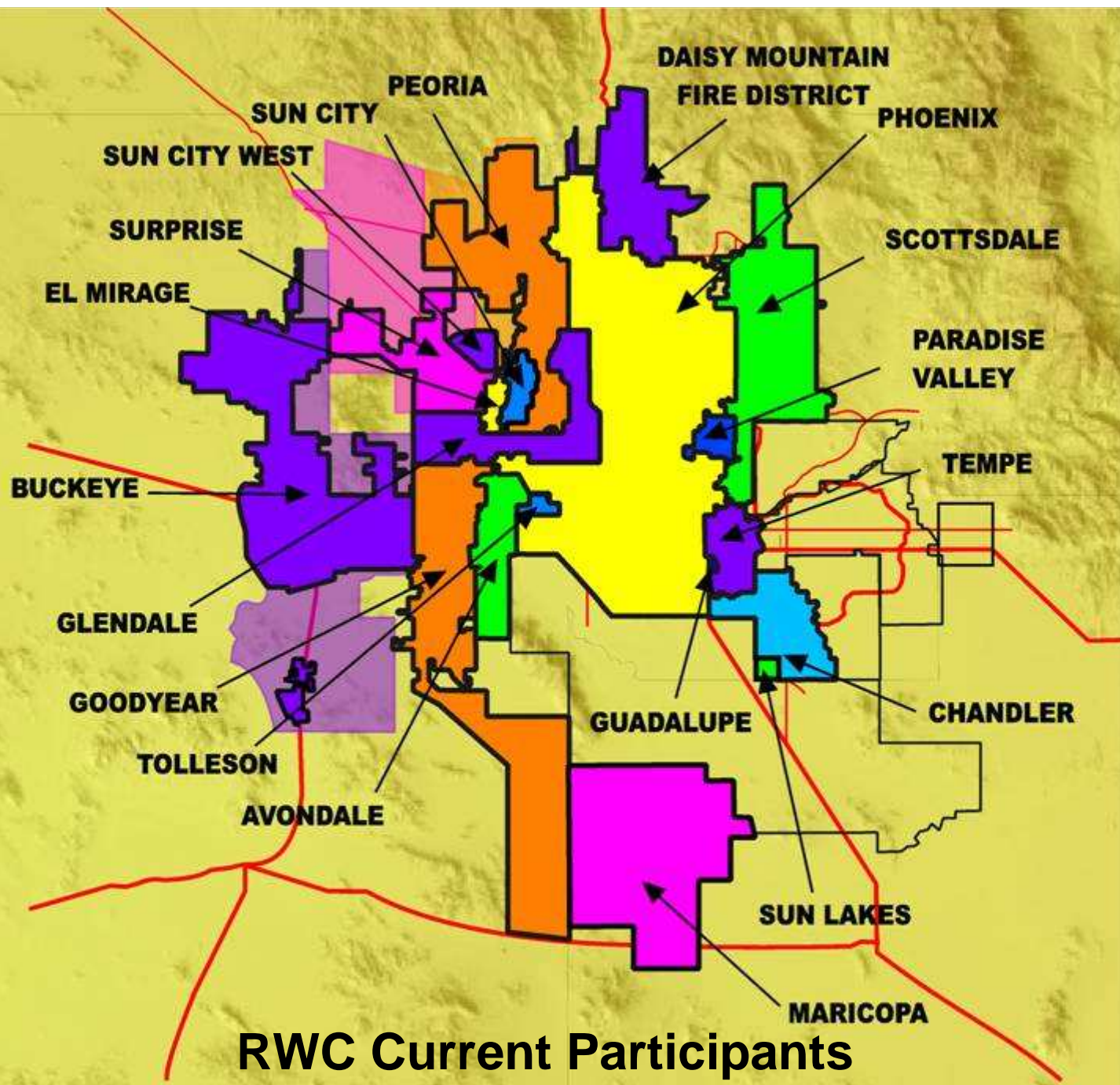
Add PSIC
High Sites

RWC Sites	Sub-Sites
Simulcast A	9
Simulcast B	9
Simulcast C	5
Simulcast F	5
Simulcast G	8
Simulcast H	7
Estrella	1
Outlet Mall	1
Sky Harbor	1
Quintero	1
PSIC High Sites	7

Add Scottsdale
PD & Muni

Add Chandler
PD & Muni





RWC Projects

- COPS 2007 – Capacity Increase
 - Increase capacity to promote interoperability
- PSIC High Sites
 - Wide area interoperability for all users with compatible radio equipment
 - Backup for the RWC system
- Chandler
 - Bring Police and Muni onto the network
 - Add one site and 4 channels to Simulcast C
 - Relocate prime site to Chandler

RWC Projects

- Scottsdale
 - Bring Police and Muni onto the network
 - Add new Zone, 7 sites and 12 channels
- Fire Transition
 - Non-hazard zone transition underway
 - Contract with BGA
 - Validate requirements
 - Update Hazard Zone transition options

RWC Projects

- Transit
 - Conceptual design to add Transit, RPTA to the network
- Potential future projects
 - Buckeye build-out
 - Goodyear build-out
 - Buckeye Valley request to investigate joining RWC

RWC Operations

- Super Bowl XLII
 - Provided wide area communications to support 66 agencies for the event
 - Supplemented the Glendale radio system
 - Expanded the use of the G deck throughout the region
- Interoperability
 - G deck
 - O deck

RWC Operations

- Interoperability (continued)
 - Future Y deck (RWC-YRCS Partnership)
 - Enhanced federal interoperability
 - DOJ Project (PSAPs)
 - 2007 SHSGP Project (EOCs)
- ACTIC
 - Encrypted communications allows for secure intelligence gathering and dissemination
 - Wide area communications capabilities

2008 NECP Goal 1

- **Goal 1** – By 2010, 90 percent of all high risk urban areas designated within the Urban Area Security Initiative (UASI) are able to demonstrate response level emergency communications within one hour for routine events involving multiple jurisdictions and agencies

2008 NECP Goal 1

- Utilized 2010 NASCAR Subway Fresh Fit 600 at Phoenix International Raceway for DHS/OEC evaluation
- Some challenges identified (plain language, ICS forms/planning, span of control, 217s, etc.)
- Used RWC G deck to support the event
- Allowed for greater public safety interoperability
- Provided a public safety grade system to support mission critical communications



2008 NECP Goal 1

- System capacity able to handle significant voice traffic and provide better coverage
- Increased cooperation and collaboration





Regional Wireless Cooperative

Questions?